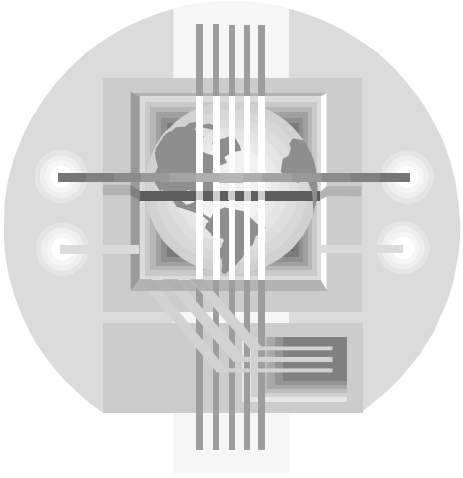
Statewide Automated Child Welfare Information System



DHR Division of Family and Children Services

White Paper
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Executive Summary

The purpose of this paper is to explore the Statewide Automated Child Welfare Information System Industry (SACWIS) including key and general influencing factors and constraints, required system elements, and overall system benefits. It will also assist readers in understanding the technical architecture, objectives and needs of the Georgia System, and demonstrate how this solution can satisfy the critical business needs of the State child welfare system.

SACWIS is a federal government program administered by the Administration For Children and Families (ACF) for the stated purpose of improving service, program and funds management to the recipients of state child welfare services. SACWIS is the first legislative initiative that provides resources for the merging and linking of multiple information requirements into a single child welfare services focused system. This system must operate uniformly as a single system (including the application software) throughout the state and must encompass all political subdivisions, which administer programs provided under title IV-E and IV-B (Foster Care and Subsidized Adoption).

The State of Georgia has multiple non-integrated processes and systems that provide information to support case management for child protection and child welfare. Although the systems meet federal as well as state statutory reporting requirements, there is still a need for child welfare services improvements. By providing Department of Human Resources (DHR) staff with appropriate tools for supporting effective case management activities and practices, SACWIS will enhance the agency's ability to meet the needs of Georgia's children and families. It will also increase the effectiveness and efficiency of the Division of Family and Children Services (DFCS) in consistently conforming to federal and state requirements, legislative directives, court mandates and state policies and procedures.

The Division and case managers recognize that sophisticated automated tools are needed at all levels of DFCS and the Office of Adoptions (OoA) if systematic changes and improvements are going to succeed and maintained. The State's Child Protective Services Task Force has recommended the development of an automated statewide information system that will support improved and consistent case management practices. Similar findings and recommendations are reflected in the recent ACF review where Georgia met standards in only 4 of 14 areas reviewed relating to the safety, permanency and well being of families and children.

The Governor Barnes' Action Group for Safe Children reported that in too many counties the frontline workers in both DFCS and DJJ that deal with children, youth, and families suffer from: high caseloads, high staff turnover, inexperience of caseworkers and supervisors, inadequate supervision in terms of the availability and/or the skills of supervisors, low morale, and a negative public image of the agency. These conditions result in poor assessment decisions and inadequate case management that ultimately lead to worse outcomes for children and families.

In May 2001, Georgia initiated a Business Process Reengineering (BPR) Project under the direction of DFCS. This project was charged with the responsibility of making

fundamental changes in child welfare programs, and improving the provision of services to children and families. Deliverables included the following:

- An analysis of the current State of DFCS (completed October 2001)
- Gap Analysis (completed February 2002)
- Future State Conceptual Design (completed July 2002)

SACWIS is an essential component to assist in the long overdue changes necessary to provide services to Georgia's families. Based on federal guidelines for outcomes of child welfare performance, Georgia ranks 47 out of 50 states in a recent American Public Human Services Association (APHSA) survey. For the safety, permanence and well being of the families and children in Georgia we must improve on this ranking.

Economic trends such as the increase in the number of families living at the poverty level will generate a much higher demand for financial resources of the Division. With the increase in service demands also comes an increase in competition for funding resources of state agencies. General factors such as national and state economical trends, demographic trends such as the increase in Asian and Hispanic speaking citizens, as well as technological trends, capture the essence of issues that must be addressed in the planning and development of SACWIS.

The Federal Government provides partial funding for SACWIS projects. However, this funding is contingent upon receiving approval of a Planning Advanced Planning Document (PAPD) for the planning phase, and an Implementation Advanced Planning Document (IAPD) for the implementation phase of SACWIS. Federal funding also requires annual updates, via an Advanced Planning Document Update (APDU) on project status.

In conclusion, at the core of this White Paper is an overall view of SACWIS including a comparison of system requirements. The paper will highlight training needs, and document noted similarities and differences for states that have or who are pursuing web based systems. An implemented SACWIS in Georgia will provide enhanced information sharing and improved case management (decision support and productivity) services that will result in improved outcomes for Georgia's child welfare system.

Introduction

A Statewide Automated Child Welfare Information System (SACWIS) serves to automate the collection of federally mandated child welfare data and provides support for the delivery and management of child welfare services. This SACWIS white paper will assist in the planning, design, development, and immplentation of Georgia's SACWIS. It will serve to inform readers of key influencing factors, general trends and constraints, and offer an overview of the SACWIS industry.

Key Influencing Factors

Over the past twelve years, Georgia has attempted several child welfare systems development efforts. These efforts failed to achieve a Georgia SACWIS, but resulted in information that may be of use to this planning project.

The state's efforts included an early state staff initiative to develop a system in house using state resources. Subsequent efforts resulted in a comprehensive Business Area Analysis (BAA) that captured the business processes of DFCS as of December 1999. Previous advance planning document submittals have chronicled and detailed DFCS's efforts to obtain an implementation vendor and deploy a Georgia SACWIS. Those efforts were unsuccessful and suspended by the state. The following chart is a chronology of Georgia SACWIS.

GEORGIA SACWIS PLANNING DOCUMENTS

#	Document Name	Document Date	Disposition
1	PAPD	Feb-94	Approved
2	IAPD	Jun-95	Approved
3	APD	Jun-95	Approved
4	APD Revised	Jun-95	
5	IAPD	Aug-95	Approved/ not implement
6	IAPD	Nov-96	Approved/ not implement
7	IAPD Revision	Nov-96	
8	IAPD	Aug-97	Approved/ not implement
9	IAPD Revision	Aug-97	
10	IAPD	May-00	Conditional Approval 120dys
11	IAPD	Apr-01	Conditional Approval
12	IAPDU	May-01	Conditional Approval
14	PAPD	Dec-02	Approved

Georgia is now in the planning stage for a SACWIS. Key to the success of this effort is the continued support of the Governor, Georgia Technology Authority (GTA), the Department of Human Resources (DHR), Department of Family and Children Services (DFCS), and DHR/Office of Information Technology (DHR/IT).

Administration for Children and Families

The U.S. Department of Health and Human Services Administration for Children and Families (ACF) believes in pursuing a SACWIS states can meet their service delivery goals in improving the well being of children and families, ease the administrative duties of caseworkers, increase staff time with clients, and make improvements in case practice. SACWIS will also provide accurate and current information to assist in decision-making and program modification. While this is an incomplete list, ACF recognizes that states can effectively apply technology to improve the administration and service delivery of their programs. ACF will provide partial funding in the planning, design, development and implementation of a SACWIS with other funding from the State of Georgia.

ACF notes, the next generation of case management systems will cross division and program boundaries. This solution will serve as a core tool in managing a variety of case management functions such as eligibility determinations, service planning and program oversight with a new emphasis on outcomes and results.

A statewide system must operate uniformly as a single system (including the application software) throughout the state. It must encompass all political subdivisions, which administer programs provided under title IV-E and IV-B (Foster Care, Subsidized Adoptions, and Family Preservation Services).

The design concepts for a SACWIS, established by ACF, are based on the following goals:

- Provide more efficient, economical and effective administration of programs within states. This includes program management and administration for all services, and case processing, such as the following:
  - Support families to prevent the unnecessary separation of children from parents by emphasizing prevention services
  - Speed the placement of at-risk children in foster care
  - Reduce the time children spend in long-term care

- Provide for the support of system interfaces and integration necessary for the coordination of services with other Federally assisted programs. ACF believes that interfaces can help states improve in the following areas:
  - The ability to identify safety factors
  - Capture information about individuals alleged to have committed child abuse or neglect
  - Assistance in locating potential providers, including relatives
  - Measurement of outcomes
  - The exchange of information on medical related services provided to the child and family

- Provide states with automated support to meet the adoption and foster care reporting requirements through the collection, maintenance, integrity checking and electronic transmission of the data elements specified by the Adoption and Foster Care Analysis and Reporting System (AFCARS).

- Provide for the elimination of paperwork, duplication of data collection, and data entry (National Child Abuse and Neglect Data System (NCANDS), title IV-A, title IV-D and title XIX)

Child Welfare Reform

The nation's child welfare system has experienced change over the last few years. Child welfare officials have faced intense scrutiny and received harsh criticism. Elected officials, advocacy groups, and the media are among those who have begun to closely scrutinize states' child welfare agencies. As a result, federal and state governments recognize the need to improve child welfare systems in order to ensure the safety, permanency, and well being of families and children. The federal government enacted the Adoption and Safe Families Act (ASFA) in 1997 to address issues of permanency for children. ASFA also imposed newly revised federal child and family services review procedures that provide greater accountability for child and family outcomes. In some instances, states have initiated changes as a result of legal action to force change. Alabama, Colorado, and Wisconsin are states that have made changes in their child welfare programs as a result of legal action. In other instances, panels and commissions are created and charged with reviewing child welfare systems and recommending changes. It is often a result of a crisis or child death that the panels are created. Some states that have created panels include Michigan, New Jersey, and Texas.

In response to child deaths and media scrutiny, Governor Roy Barnes appointed an independent task force to examine Georgia's child welfare system. The task force found that Georgia failed to implement changes and demand a level of accountability that might have improved the lives of the states' most vulnerable children. The task force recommended that 3 actions needed to occur in Georgia:

- Organizational changes
- Change in how the state and communities respond to vulnerable children and families
- Establishment of both leadership and implementation oversight for the needed reforms

In addition to the task force findings, the Federal Child and Family Services Review found that Georgia did not meet 10 out of the 14 outcomes that were reviewed for compliance.

Safe Futures for Georgia's Children: A Comprehensive Plan for Child Welfare Reform was the plan developed to address these and other issues in Georgia's child welfare system. The core of the *Safe Futures* plan is a set of eight specific *action initiatives* that when fully implemented should change and transform the existing child welfare system. These initiatives address all the critical elements of a responsive, accountable, and effective child welfare system. The initiatives are as follows:

- Improved accountability for achieving positive outcomes for children and families
- New community partnerships focused on the prevention and early intervention of child abuse and neglect
- Responsive child protective services investigation

- Redesigned child welfare practice
- Well-trained and stable workforce
- Fully developed foster care continuum
- Expedited permanency for children in foster care
- Integrated information systems to support the reform

A Business Process Reengineering (BPR) Project was also initiated in July of 2001. The overall goal of BPR was to develop a leading edge case management process that would improve the efficiency, effectiveness, consistency and timeliness of outcomes and the ultimate impact on safety and permanency for the children and families of Georgia. This project was completed in July of 2002 with recommendations to the DFCS Management Team for "Future State Case Management".

Technology

An emerging trend for SACWIS development is web access technologies. Web access is a system of Internet servers that support specially formatted documents. The documents are formatted in Hyper Text Markup Language (HTML) that support links to other documents, as well as graphics, audio, and video files. This means you can move or navigate from one document to another simply by clicking on an area of a graphics object, or a section of text, that activates a function when selected. Other systems used to access web documents, include Standard Generalized Markup Language (SGML) and Extensible Markup Language (XML). SGML and XML specify rules for tagging elements in documents. Documents are accessed utilizing a web browser (software application) such as Internet Explorer or Netscape. Web-enabled, web-based and client server are technologies that will be discussed in this paper.

A Web-enabled application is written for the client server or mainframe environment and only the client is re-written for web access. In the web enabled system, the application on the web server accepts the Hyper Text Transfer Protocol (HTTP), divides the language into small components that can be analyzed, packages the data into a message, and sends the message back to the legacy workflow system formatted to match the legacy system's Application Programming Interface (API). The legacy system processes the message and takes the appropriate action. The business rules associated with the request are encoded and managed by the legacy application. A web- enabled application requires all updates, including business rules, to be funneled through the Information Technology (IT) group that supports the legacy system where all of the functionality resides, which produces inefficiencies, inevitable backlogs, and bottlenecks.

A web-based application is designed from scratch to be accessed over the Internet by a web browser. It is developed so that the application can be extended by additional components and managed by an application server with built-in features such as security and integration. In the web-based system, the application on the web server accepts the request, divides the language into small components that can be analyzed, and determines what calls to make to the workflow functions. After the workflow functions are completed, the application on the web server applies the business rules to the data received and the information is displayed to the user's browser. The business rules that drive the web-based

application can be updated or changed by the domain specialist (non-IT specialist) who develops and is responsible for these rules from the business perspective. An IT specialist updates the legacy and workflow functions.

Benefits of a web-enabled SACWIS are as follows:

- The easy to use browser is the same on every hardware platform.
- Intranets provide remote access without a wide-area network (WAN) by allowing people to connect in through modems and ordinary telephone lines.
- Reduced hardware costs. Relatively inexpensive personal computers (PCs) can be used to run web browsers.
- Reduced software maintenance costs. It is not necessary to upgrade each computer's operating system or to load new versions of the information management system each time there is an upgrade. Only software on the server is affected.
- Platform independence. Web browsers run on all computer platforms. This is very important to agencies with heterogeneous computing environments.
- Leverage new Internet technologies to provide welfare workers with round-the-clock access to the critical information and case management tools they need to succeed.
- Reduced redundant data capture is a time saver.
- The ability to fine-tune access to data ensures that certain data is accessible only to case managers, managers, or only to those in a particular division.
- The ability to target information to specific people directly and also to customize it for different individuals.
- Web-enabled SACWIS provides seamless integration with existing systems.
- Web-enabled SACWIS provides the ability to exchange data with other divisions and organizations.

Risks of a web-enabled SACWIS

- Protection of data

  One challenge to implementing a web based SACWIS is security. The use of firewalls may be implemented in either hardware or software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria. Firewalls are considered a first line of defense in protecting private information. For greater security, data can be encrypted, which is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key or password. Employees' awareness of their responsibilities, expectations and security authorizations are challenges. There should be a well-defined employee security plan that addresses expected responsibilities for each employee based on their job responsibilities. The plan should also include ongoing awareness.

- High risk of implementation delays due to a large number of required interfaces
- Lack of sufficient bandwidth

- New application technology means higher technological risks
- Concurrent development of HHS portal and web services

The Center for Technology in Government gives the following reasons for government to web-enable services and systems:

- Web-enabled systems are user friendly. Many people are familiar and comfortable with using the web, which reduces the learning curve for employees
- The ability to improve business processes
- The ability to integrate diverse systems

In an article entitled "Why Web-Enable," the following benefits are outlined:

- Leverage existing host systems
- A decrease in error rate
- An increase in productivity:
  - Streamlines employee training
  - Improves system usability
  - Streamlines session navigation

The majority of states operate a client server SACWIS. A client is an application that runs on a personal computer or workstation and relies on a server to perform some operations. For example, a client submits a request to a server. The server processes the request and returns the results to the client. Clients rely on servers for resources, such as files, devices, and even processing power. A client server environment facilitates the use of Graphical User Interface (GUI) that is available on workstations, and application development is much faster. The visual presentation increases productivity of the end user. The following issues must be resolved in a client server environment:

- How is the application split between the client and the server?
- What functions goes into the client and what goes into the server?
- How is mobile computing handled?
- How will data be exchanged with other divisions and organizations?
- How to resolve conflict between the client and the server?
- What type of middleware is required?
- Does the model require a distributed database?

Other new paradigms are also shaping the government technology market:

- Movement of IT initiatives funding for e-government projects from IT budgets and embedding them into daily operational budgets of an agency has accelerated the procurement process.

- The involvement of state governors and agency directors has had a profound impact on the procurement process.

- Like no other technology initiative e-government is bringing new levels of automation, customer outreach, and business services to the local government

marketplace. There is a demand from human service agencies for integrated open systems both within and across various agencies.

Functional Requirements/Benefits

Federal guidelines include a set of mandatory functional requirements. States have the option to go beyond those requirements to fit their individual needs. Additionally, states decide how their functional requirements will be met through both technical and functional specifications. Federal guidelines have given states some flexibility in their project approach. States may purchase and install hardware prior to implementation of the system to take full advantage of federal funds and enhancements.

System Training

Effective training, initial and ongoing, is critical to the successful development, implementation, and use of the Georgia's SACWIS. State managers recognize the importance of planning, preparing, and presenting effective and comprehensive training for all individuals. Training is a critical component of introducing a SACWIS application to staff. This training should integrate PC skills as well as SACWIS application hardware.

Recommendations from the DFCS Training Evaluation & Needs Assessment submitted July 31, 2002 suggested three major goals for staff training and development.

- Training should be as realistic as possible and prepare people for the actual circumstances they will encounter on the job.
- Training should equip workers with the skills and knowledge needed to do their specific jobs.
- Training should contribute to a worker's basic sense of fulfillment so they can continue to grow professionally.

DFCS County Directors were also surveyed and they believe that standards should be established and maintained to ensure consistency of training, interactive methodologies, sensitivity to adult learning styles, and subject matter relevant to particular DFCS environments.

Changing Demographics

The current work force is comprised primarily of two generations:

- Baby Boomers (1946-1960)
- Generation X (1961-1981)

According to articles written by, L. J Bradford and C Raines (Twenty Something: Managing and Motivating Today's New Workforce), individuals born in Generation X are reputedly more global, technologically oriented, and culturally diverse than the generations before them. Various books, articles, and surveys have described individuals in Generation X as slackers, cynical about the future and resentful of Baby Boomers who have taken all the good jobs. They have been told that they are the only generation since the Civil War to come of age unlikely to match their parents' economic fortunes. They place little faith in job security. They saw their parents laid off without cause and their perceptions of the working world were shaped in time of economic turmoil. Although individuals in

Generation X may be cynical, they do not lack drive. The real asset individuals in Generation X bring to the workplace is their knowledge of technology and their ability to concentrate on a number of tasks at one time. This is especially significant in this "age of computers." Generation X are either adept users or at least unafraid to try new technology. Combine this absence of fear with the ability to parallel think and process information quickly, and these workers can pick up almost any software program and learn it quickly. Research shows Generation X commitment to family is important. They were latch key children and do not want the same for their children. Therefore, they require greater flexibility in work location, non- traditional hours and more attractive benefit packages. This change in workforce supports the integration of technology in the field of child welfare.

According to Georgia Department of Labor Projections, the service industry, which includes social services workers, is one of the fastest growing occupations. The State of Georgia's entire labor force grew by 778,003 in the preceding ten years. The social services workforce is projected to increase by 47% by 2008 over the 1998 figures.

Increasing Service Demands and Increased Competition for Investment Dollars

The projected increase in the number of families living in poverty in Georgia will generate a higher demand for Department of Human Resources (DHR) financial resources. The increase in service demand will compete for the same resources necessary to fund SACWIS. Limited resources at both the federal and state government levels could affect the SACWIS development timeline and SACWIS development decisions. Additionally, increases in the number of families receiving state support will increase work demands on DFCS Economic Support and Child Care staff. SACWIS will also increase the need for the investment in system support, such as help functions, software and hardware maintenance.

General Trends and Constraints

Economic

Cost allocation (operational) methodology indicates states are encouraged to build systems to assist with a variety of services. Systems should be bridged to communicate with each other. Federal funding for a SACWIS is limited to the developmental activities covered in the Advanced Planning Document (APD) guidelines. Other agencies may share the system but would be financially responsible for usage.

National issues, such as Homeland Security initiatives will create additional competition for limited funds. Time frames for establishing a SACWIS need to be considered as a constraint since the application and approval process are timed events. Funding for program services and for existing system maintenance will have to be evaluated in light of new system investments.

Competition within government for limited monetary resources is a constraint. The outstanding federal debt as of October 28, 2002 is $6.25 trillion and grows by $1,140 million per day. Growth slowed in the second quarter, 2002 pace of growth in averaging hourly earning has been slow during the past year, reflecting the impact of the recession.

Georgia Department of Revenue information dated July 10, 2002 reflects a decrease of 5%. Collections for FY 2002 totaled $13,090,451,065 compared to $13,776,659132 from FY 2001, a decrease of $686,208,066.

Demographic

DFCS manages child welfare programs over twelve geographic regions in 159 counties. The population of Georgia according to Census 2000 was 8,186,453, which represents an increase of 26.4 percent over the 1990 Census. Another increase of 20.4 percent is projected for the 2010 Census. DHR/DFCS will have to become more efficient in service delivery. Georgia is the fastest growing state east of the Rockies on a percentage basis. Only five (5) other states had a higher percentage. A migration of people from other states and nations has driven Georgia's growth. Estimates from the Supplementary Survey of the Population 2000, completed in conjunction with the actual census, indicated a foreign born population in Georgia of 552,000. A total of 347,000 entered the State between 1990 and 2000. These migration patterns have significantly changed the racial composition of Georgia. It is expected that the foreign born population will increase by 33 per cent in 2010.

The number of children under age 18 in Georgia increased 25.6 percent from 1990 to 2000. The under 18- age group makes up 27.5 percent of Georgia's population, while the over 65 age group is 9.6 percent. It is predicted that the over 65 age group percentage will rise in the next census due to the aging baby boomers (1946-1964). It is also expected that the under age 18 group will also increase in the next ten years. The increase of the Hispanic Non-white and the Asian populations will create a need for a multi-lingual workforce to assist families. This is primarily in the Atlanta Metro area and includes Fulton, Dekalb and Gwinnette counties. DFCS service delivery system will need to accommodate different cultures that address a wider range of life styles. This information is supported by the ethnic group variance employed by DFCS as of June 24, 2002 and the Governor's Action Group for Safe Children.

The Annie E. Casey Foundation "Kids Count" statistics indicates that 41% of children were connected to the Internet from home in 2001 compared to 11% in 1997. The costs of purchasing and maintaining a home computer and Internet connectivity have become more affordable to the majority of American families, but there is still a large number of low-income families who are left behind creating the digital divide.

Georgia's 2001 social services statistics indicated 54,543 cases were accepted for services with 19,943 being substantiated for child abuse and neglect. The total number of children in state custody in 2001 was 20,745. Termination of Rights (TPR) occurred in a total of 3,547 cases and 942 children were placed for adoption. Overall this was a 10% increase from the previous year.

Technological

The expanding role of technology raises the demand for electronic delivery of social services. It also accelerates the need for the investment in required systems, infrastructure and equipment simplification. Governments on all levels are recognizing the need to simplify government, reduce duplication of information and improve services.

Technological advances in the development of new reporting tools have been enhanced by the introduction of web accessible tool sets. These advances have proven to be cost effective and have relieved (IT) staff from designing and developing these tools.

Web accessible systems are compatible with web browsers and intranets. The popularity of a web accessible system is due to user-friendly programs and the need for minimal training. A web accessible system makes the following possible:

Global collaboration
Effective communication
Timely access to information
Cost effectiveness

A technology trend called data warehousing or "data marts" is a way of collecting and storing large amounts of data on customers and program data. Data warehousing is different from a traditional database and can be useful in transforming data from a latent resource into a powerful, dynamic information tool. Practically every state has developed, or is in the process of designing or planning to build a data warehouse to implement welfare reform. This resource will allow for the tracking and recording data for our customers and families. It will also support a better reporting and analysis of AFCARS and NCANDS that will maximize federal funding.

Another trend in technology is Interoperability, which assists systems to work with other systems without special efforts on the part of the customer. It becomes a trend of increasing importance for information technology as the concept, "the network is the computer", becomes more and more of a reality. Interoperability requires systems to be compatible with each other. One advantage is its compatibility with web access systems.

Tools in the area of technology for case managers include handheld devices to assist with fieldwork. These PDA's range from handheld pocket personal PC's to notebooks and offer tremendous benefits to how case management can be done. This trend in technology is changing rapidly with new space-age developments.

A portal is a method of using Internet web technology to integrate information from different computer systems in state government. It will provide a single point of entry via the Internet for citizens and state employees to access computer applications according to their authorized security level. According to the Gartner Group, portals should conform to the following qualifications:

- Connections to the resources of the Internet through search engines, shopping engines and other utilities.
- Content in the form of appropriate news, entertainment and instruction for interested users.
- Commerce involving access to electronic shopping and other commercial activities.
- Community of interest defined by ground rules and tools that enable participants to interact. (Groups of users {agencies, employees, stakeholders, consumers, and constituents} that are interested in common services or products.)

Voice/data convergence is an emerging technology trend. *Washington Technology*, a national newspaper for government information technology integrators, defines voice/data convergence as voice and data together on the same network. This telecommunication allows an agency to simultaneously have a dialog with a customer and see what the customer is seeing in order to provide better service. The study, "Convergence: Telecommunications in the Federal Government," concluded that cost benefits derived from convergence in conjunction with the evolving e-government initiatives will drive a steady increase in convergence implementation among federal agencies. Federal agencies have a mandate under the Government Paperwork Elimination Act of 1998 to do more work electronically. To comply, agencies have to improve their telecommunications infrastructure to support digital government, the report said. Through the use of technologies such as voice over Internet protocol and multimedia, federal agencies can make government more effective and efficient.

Georgia has developed a proposal that will deliver integration and management of a converged suite of telecommunications and information technology services in a statewide environment. This proposal termed Converged Communications Outsourcing Project (CCOP) is an initiative that will transform the information communication infrastructure for the State of Georgia. Per Governor Barnes, CCOP will "serve to ensure that all areas of the state have high-speed data capabilities, and will allow every citizen to have access to government information and services with a push of a button".

A recognized constraint in the area of technology is initial and maintenance funding. However, a more significant constraint in the ever-changing world of technology is the ability of IT staff and entrepreneurs to develop systems that will serve for a reasonable amount of time without becoming obsolete. There are broadband connections in the larger cities and the metropolitan areas in Georgia, but the remote areas and so-called dead zones in the rural sections of Georgia offer formidable problems to resolve. There will be constraints with employees' frustration with change and this anxiety may cause resistance to changes associated with technology. Our customers may feel intimidated or possess insufficient knowledge to operate the technology (the fear of the unknown). Equipment will need to be enhanced and updated to elevate time restraints, improve applications and offer integrated, open systems both within the agency and across various agencies. Another constraint is the perceived security issues due to web enabled systems applications. *Washington Technology* reports that the constraints for voice/data convergence are the expense of consolidating more bandwidth, the financial investment involved in moving to voice/data convergence and upgrading the government networks.

Georgia has thirteen systems for collecting and recording information in Social Services, Economic Support, and Child Support; however, none of these systems are interfaced with each other. The systems are:

SUCCESS
PSDS
$TARS
IDS online
See Dot (Fulton)
Service Net
Clarke Co. System (SSAS)

CoStars
SMILE
ADAM
DOC
CPRS
Sexual Offender

Regulatory

A primary concern for many years has been the lack of information available on children in foster care and their families. Child welfare data must be mapped to the federally mandated AFCARS and NCANDS definitions and extracted from SACWIS. The extracted data must be formatted and transmitted to the ACF according to specific requirements. AFCARS and NCANDS data are critical components of a broader child welfare information system strategy, when linked to the full range of case, staff and service resource information. The development and implementation of a SACWIS is of critical importance. SACWIS is the first legislative initiative that provides resources for the merging and linking of multiple information requirements into a single child welfare services focused system. The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) made funding available for the planning, design, development and installation of SACWIS.

The passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 marks a historic moment in national social policy; both in terms of the transformation in philosophy that guides the delivery of publicly funded human services and in the redesign of substantial modification of federal income and family support programs. Social Services have been impacted especially through foster care and adoptions programs. The Adoptions and Safe Families Act (ASFA) of 1997 (PL105-89) focuses on three national goals for children in foster care (safety, permanency, and well-being), and reinforces the Adoption and Child Welfare Act of 1980 (PL 96-272), which deals with reasonable efforts and expediting permanency.

Although there is little information regarding the need for more or less regulations, it would appear there are sufficient regulations in place to address the issues of child abuse and neglect. In January 2000, the Department of Health and Human Services announced important child welfare regulations that will improve outcomes for abused and neglected children, children in foster care and children awaiting adoption. The regulations will hold states accountable for services to at-risk children with a new results-oriented approach in federal monitoring of state child welfare programs. The final rule will also guide states in the implementation of recent new laws including ASFA and the Interethnic Adoption Provisions (IEP) passed as part of the Small Business Job Protection Act. States will be assessed for compliance with federal requirements for child protective services, foster care, adoption, family preservation and support services under titles IV-B and IV-E of the Social Security Act. The reviews will occur in Georgia in the fall of 2003 and address two areas: outcomes for children and families in terms of safety, permanency and child and family well-being; and the administration of state programs that directly affect the capacity of service delivery leading to improved outcomes.

Current constraints include several class action lawsuits listed below, which currently affect policy and service delivery in Georgia:

- State vs. Jackson - concerns maintaining a list of individuals as maltreators on the new system and retrieving information on those maltreators
- J.J. vs. Ledbetter - concerns DFCS Social Services obligations to parents whose children are in our care
- Taylor vs. Ledbetter - concerns our treatment of children in foster care
- J.L./J.R. vs. Ledbetter - concerns our treatment of mentally ill and retarded children who are in DFCS custody and places parameters on their commitment to State residential facilities.

Pending Class action cases include the following:

- Kenney vs. Barnes - Demands that the State of Georgia repair "dangerously overburdened, mismanaged, and out of control" foster care system.

Stakeholders

Stakeholders in the child welfare system include federal and state governments, child welfare agencies, schools, the legal system, medical providers and the community and citizens at large.

The nation has entered a social policy era where the responsibility for better outcomes for disadvantaged children is shifting from federal government to the state government. This decentralization, sometimes called "devolution" or "the new federalism" is expected to have a major impact on the nation's health, income-security, social services and job training programs. Although states acquire added responsibilities in this new era, resources remain constant.

The Annie E. Casey Foundation through a consortium of philanthropies is providing funds to the Urban Institute for a comprehensive, nonpartisan research project that will create a database on the Internet to assess social policies in all 50 states and the District of Columbia. This will assist policy-makers, program administrators, the news media, and other audiences in distinguishing promising state innovations from those less likely to improve outcomes for children and families.

The trend is to involve stakeholders by enhancing relationships and involving them in the case management processes. The plan is to develop partnerships because no one agency can ensure the safety, permanency and well being of children and families. Partnerships will allow us to educate, inform, engage, and learn from the community. SACWIS will be a tool that will support communications between stakeholders. Child Welfare Institute (CWI) with the assistance of the Business Process Reengineering Project conducted interviews/surveys with internal and external stakeholders. The results proved positive indicating external stakeholders want and assist in matters of child abuse and neglect. Community agencies involved include Families First, Georgia Council on Child Abuse, Law Enforcement, District Attorney, United Way, and Grady Hospital. State agencies include Mental Health, Public Health, DHR, Department of Juvenile Justice, Juvenile Court Judges, Supreme Court of Georgia, Child Advocate, The Administration of Children and Families, Citizen Review Panels and Georgia Court Appointed Special Advocates. Provider agencies involved include Georgia Association of Homes and Services for Children, Roots – Private Adoption Agency, and Georgia State University. These stakeholders seek a "win-win" situation with DFCS, and see a common vision with ensuring the "best interest of the child". However, stakeholder interviews conducted by

CWI indicate there is a lack of confidence in DFCS case managers and supervisors, which has weakened stakeholder trust. Reengineering business processes and involving both internal and external stakeholders was needed and will offer huge benefits in improving public relations, and promoting success in child welfare issues.

Georgia has developed an initiative called Community Partnerships for Protecting Children (CPPC). Nine counties were selected to participate in supporting the project. Counties included in CPPC are: Jenkins, Muscogee, DeKalb, Cobb, Fulton, Catoosa, Peach, Clarke, and Brantley. Each of the nine counties has chosen one community to begin the work of CPPC model and has placed one worker in the community to coordinate the work. The services CPPC will offer to their community include: literacy classes, after school programs, day cares centers, parenting classes, parent support groups, respite care for parents, and any other services needed in the community to prevent child abuse and neglect. CPPC has evolved into a partnership between DFCS and Family Connections and supports Child Welfare Reform and the Safe Futures Initiatives developed by the DFCS Division Director.

Currently, Georgia is one of at least twelve states to open an independent Ombudsman's Office designed to protect the rights of children in state care and to monitor agencies charged with protecting children. The Office of Child Advocacy was established in 2000 and has been an asset to the State.

Business Process Reengineering recommended realignment of business functions from the current "silo" approach where work is measured within each program area (Child Protective Services [CPS], Foster Care [FC], Adoptions and Adult Protective Services [APS]) to measuring and achieving targets in each process and function. This recommendation will allow case management to flow across all programs in case management. SACWIS will support this process. Constraints for Stakeholders include the level of access to information within the system.

Substitutes and Competition

The Department of Juvenile Justice (DJJ) Mental Health, Public Health and possibly Office of Regulatory Services (ORS) as well as private industries perform case management services. These agencies manage caseloads and can also receive federal funding for the development of case tracking systems. There are a number of private group homes, institutional placement venues, and personal care facilities that could also offer alternatives to DFCS case management services. Other possibility for SACWIS usage competition would be for a county to develop a SACWIS that is then adopted statewide. This was the initial approach Georgia SACWIS pursued without success.. This has occurred in the state of North Carolina. There is also the feasibility of private development of a SACWIS; however, the market size of less than 50 states would hamper such an investment.

Outsourcing and privatization are opportunities for program substitution. OOA currently out sources some adoption services. Other states outsource foster care. The number of government agencies contracting out child welfare services, particularly with non-profit organizations is increasing. Traditionally, child welfare contracts have been fee-for-service contracts and have not been subject to competition. This is beginning to change. States and counties are now putting out Requests for Proposals (RFPs) that seek bids for performance-

based contracts, meaning they must agree to deliver the services in bundles for a fixed price per case. This shifts the financial risks to the private sector.

Substitutes for SACWIS may include building onto current systems, adopting a case planning solution (doesn't have to meet SACWIS requirements). Long delays in SACWIS development increase the likelihood of substitutes.

SACWIS Industry Overview (Similarities/Differences Between States)

System Needs

A SACWIS must meet certain federal requirements in order to receive federal funding. It must also meet certain state requirements. The system must provide for efficient and effective case and administrative management, tracking and reporting by means of automated procedures and processes. These processes include meeting foster care and adoption Federal and State reporting purposes by interfacing with Adoptions and AFCARS and NCANDS. The new system must also provide for the exchange and referral information with (SUCCESS) IV-A, (Medicaid) Title XIX and (Child Support) Title IV-D systems. A critical requirement is to ensure confidentiality and security.

Multiple circumstances that create the need for a Georgia SACWIS include the following:

- Failure of counties to register children with the Office of Adoptions, complete life histories efficiently, and/or update life histories as required.
- Hampers sharing of critical case information and insufficient partnering with the juvenile courts due to inadequate, inconsistent tracking and maintenance of court records.
- Inadequate communication between DFCS staff and community resources and partners.
- Inconsistent application and/or inadequate knowledge of state policies and procedures.
- Inconsistent decision-making and poor quality of service delivery to children and families.
- Inconsistent, inefficient and/or ineffective case documentation.
- Inefficient and/or ineffective training of case managers and supervisors.
- Limited capabilities to track recipients of inter-county and intra-county social services (victims, alleged maltreators, and families).
- Unresolved staffing issues: low morale, high turnover rate, lag time in filling positions and in meeting budgetary lapse factors, and unrealistic expectations regarding the size and management of caseloads.
- Untapped revenue though Title IV-E, IV-A, IV-D, and Title XIX due to unavailable data and inconsistent county efforts.

Functional Objectives (outlines what will be accomplished as a result of SACWIS):

Ohio, Illinois and Georgia systems maintain some of the same objectives. Ohio differs from Georgia and Illinois as it provide additions online foster care services:

- Automate statewide Adoption Match with online query of match results
- Online access to facility, program and foster care minimum/maximum rates
- Online foster care licensing
- Improve the capability to support all member of the child welfare case (including managers, supervisors, courts, and community-based resources).

Georgia's system must meet the following objectives:

- Provide current and accurate data for reporting, performance management, accountability, consistent practice, and equitable workload distribution.

- Provide timely, accurate information and alerts on children and families so that case managers and administrators can conduct case management activities, including the development of life histories.

- Provide statewide search capabilities across agency programs for prior history on individuals and families.

- Provide support for resource management, including automated procedures for recording demographic and program information about provider.

- Provide prompts, alerts, and ticklers throughout the system to support staff in assessment, case plan, case management, and case review process.

- Provide support for tracking and maintaining records of court actions and other legal matters.

- Provide data for local, state and federal reporting purposes (including state and county annual reports, AFCARS, NCANDS, and ASFA).

- Provide on-time client data entry to ensure data integrity consistent with state and federal requirements, allowing for access from any system module, and maintain accurate client and accounting records.

- Provide an internal audit trail of all cases sufficient to meet state and federal requirements for reviews conducted under authority of Title IV-B, Title IV-E, and other relevant program areas.

- Provide consistent and accurate management and reporting of data to maximize federal revenues, including the identification of the appropriate financial program through which funds must pass (eligibility determinations and re-determinations).

Technical Objectives

Ohio and Illinois technical objectives are similar to Georgia's. However, Ohio's technical objectives differ from Georgia in that their focus is not on technology but rather on results. Georgia SACWIS must meet the following technical objectives:

- Be designed for ease of use by case managers, clerical staff, supervisors, and administrators
- Conform to the DHR and State of Georgia enterprise standards for hardware and software
- Eliminate duplicate data entry
- To the extent feasible, operate on existing SACWIS equipment and technical infrastructure
- Provide a common database
- Provide for disaster recovery
- Provide for software and data integrity
- Provide on-line access
- Provide system and data security
- Provide system interfaces
- Provide technical advances over the current systems

New System Benefits

The benefits anticipated from implementation of a Georgia SACWIS include:

- Provision of support for expeditious and improved outcomes for children and families in Georgia.
- Provision of a support structure for new case managers and supervisors as they become acclimated to their job responsibilities.
- Provision of support for efficient and consistent decision making by case managers and supervisory staff to improve services and outcomes for children and families.
- Improvement of staff morale through enhanced organizational performance as demonstrated by outcomes reporting, more consistent decision making, standard application of policies and practices, timely case closures, and more direct service provision.
- Assistance in maximizing the use of resources (e.g., funding sources, staff time, and community and placement resources). By maximizing resources, more can be directed to specific vulnerable populations for prevention.
- Validation of needs in a quantifiable manner through better statistics to support budgetary requests and to aid in strategic planning.
- Improvement in the ability to meet all federal reporting requirements in a more efficient and effective manner.

- Improvement in DFCS's position in the community due to more timely and accurate information-based results.
- Provision of an accurate means of measuring and reporting the performance of the division as a whole or by county so more resources can be directed to the areas in need of them.
- Enhancement of the Department's ability to engage community partners in identifying and resolving needs through coordinated programs of community based family support services.
- Provision of policies, practices, and application training through computer-based instruction to increase the skill level of front line staff to better deal with families in crisis or with the growing need for post adoption services as a result of the Adoption and Save Families Act of 1997.
- Provision of one-time client data entry to ensure data integrity and to allow access from any system module.
- Increase in the amount of time case managers spend on client-focused activities such as family preservation or prevention.
- Reduction in the time case managers spends on documentation and administrative paperwork.
- Reduction in paper-based files and other records.
- Increase in safety for children through more complete accurate information and better tracking from county to county across the state.
- Decrease in time children spend in foster care before returning home or being placed for adoption or some other permanent living arrangement.
- Generation of case-specific forms, reports and letters from data entered into the system.
- Provision of the capability to maintain and update state policies and procedures on-line.
- Improvement in the readability of case documentation.
- Simplification of the process of extracting confidential information from a case record.

Functional Requirements

Functional requirements outline major functionality. States have the option to go beyond those requirements to fit their individual needs. A function is a group of related activities or duties contributing to a larger ongoing action (e.g. screening as part of intake). Functions work together to produce a child welfare automated system that helps case managers to be more efficient in their duties. The system will allow more time for direct contact with families and children and less time doing redundant paper work and reports.

Required major functionalities:

- Intake Management - Process referrals for services, conducting an investigation, and assessing the need for services.
- Eligibility - Determine programs for which funding support is available for clients receiving services. Program eligibility may include funding for foster care/adoption

payments and determining the type of program that allows a client to receive Medicaid coverage.

- Case Management - Prepare service plans, determine whether the agency can provide the services, authorize the provision of services, and manage the delivery of those services.
- Resource Management - Supports the maintenance and monitoring of information on an array of service providers, including prevention programs, placement services and foster care providers.
- Court Processing - Legal activities and documentation procedures involving judicial events requiring action on the part of the state agency.
- Financial Management - Track and manage financial transactions. It may be part of the SACWIS itself or an automated interface to a department or statewide financial system.
- Administration - Incorporates procedures for ensuring support for efficient management of as well as reliable and accurate operation of the system.
- Community Relations - Engage, inform, educate, and learn from community.
- Interface - Electronically links between the child welfare and other systems, to receive, transmit, and verify case and client information.

Each state must include all required functionalities in SACWIS in order to receive federal funding. The optional functionalities listed below are similar, different or additional to what Georgia proposed. These functionalities have been used by other states (West Virginia, Ohio, Illinois, Delaware and South Carolina) in some combination.

Similar options:

- Perform risk assessment *
- Match client to placement alternative
- Identify program outcome measures
- Record and track provider training
- Alert ticklers for case managers
- Contract Management *
- Court Activities *
- Provider services *

*** Asterisks denote functionalities that are high priority for Georgia.**

Different options:

- On-line foster care max./min. rates
- On-line foster care licensing
- Adoption on-line match with query
- Workflow management

Additions functions:

- Child Care
- Juvenile Justice
- Adult protective services (Georgia also chose this addition)

Minnesota chose to exclude Interstate contract activities and New Hampshire excluded Provider Services activities.

Technical Architecture:

System architecture is comprised of the various components that operate together to achieve business objectives. Technical architecture encompasses software, network and database architecture. They are multi-dimensional, with several building blocks (functional, application, data, hardware, network, and software). These building blocks all work together to help employees accomplish their daily tasks in a more efficient manner. Some State systems operate using client server database (Sybase, Oracle, SQL, etc) to store, sort and link data. Data may be stored at multiple levels databases and connected with other databases on the Wide Area Network (WAN), Local Area Network (LAN) or Metropolitan Area Network (MAN) to share information. MAN systems are web accessible, web enabled or web based, which means that case data may be accessed via an Internet browser. Case managers will have the flexibility to access information while working in the field through remote access. Systems are now being built to access interfaces with other agency systems and state agencies. The new technology allows for the case manager to be well informed and allows for them to gather and share information with other agencies to better serve their clients.

The State of Georgia's SACWIS is proposing to be a comprehensive, and multi-tiered on-line system that users will access using a standard Internet browser. Using a browser-based interface allows the department to ensure that the current functionality is always available to all users. This approach also:

- Minimizes field support needs
- Increases multimedia capabilities
- Reduces the amount of user training needed
- Reduces dependency on client hardware/platform
- Provides universal accessibility for clients and other parties
- Promotes ease of maintenance

Conceptual Architecture

- Presentation Services
  End users will access SACWIS functionality through a graphical interface that is accessible via the Web. Access will initially be provided only to those within the existing Georgia SACWIS network infrastructure. Subsequent phases will provide access to external partners and agencies via the Internet.

- Application Services
  Enterprise class application services will be developed. Existing applications will be integrated and accessible via a shared front end that will contain business logic and edits.

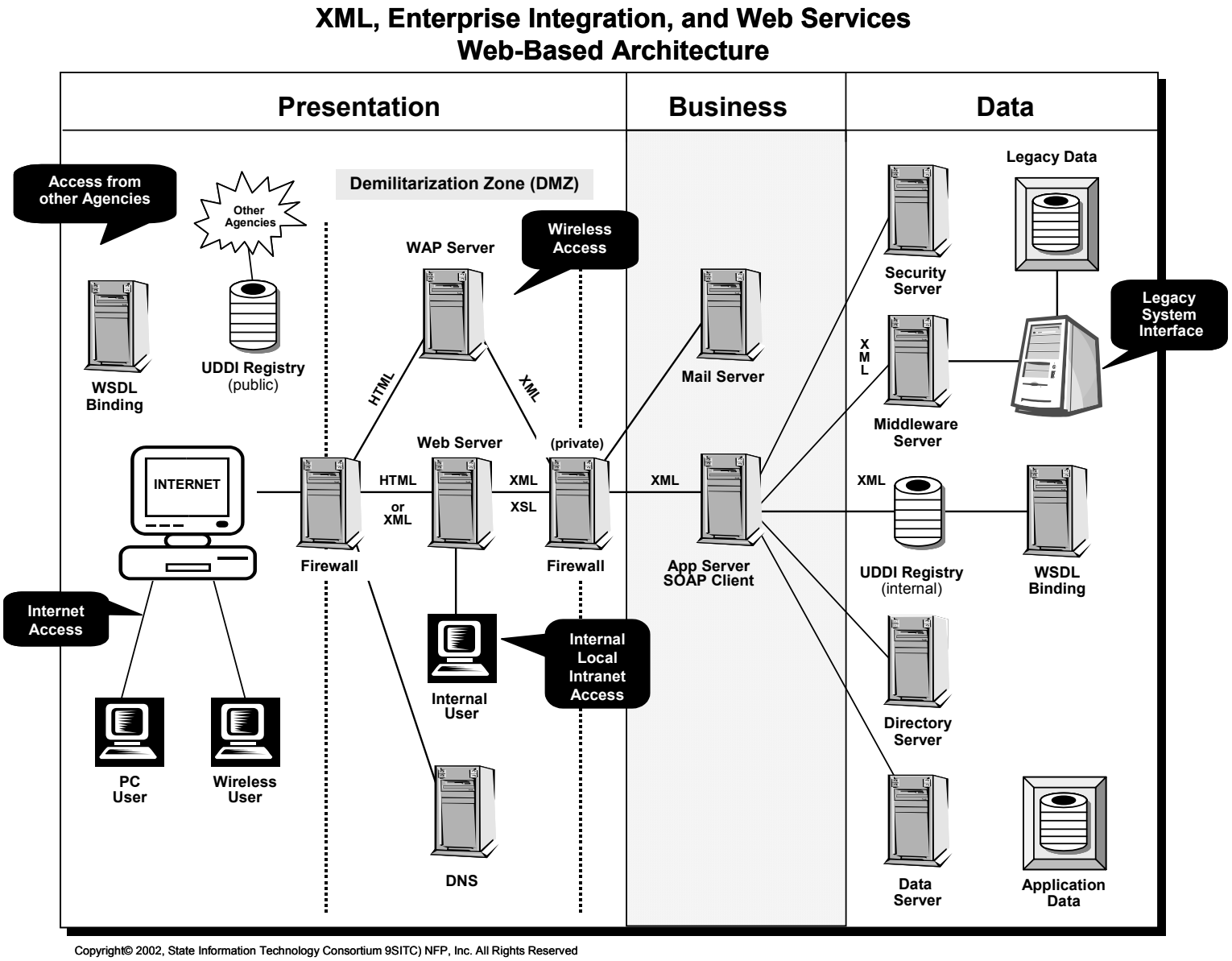
- Web Services
  Web services will manage users' requests and responses from the application. It will provide users' input to the application services for processing and then send the application's response to the user.

- Database Services
  An enterprise class relational database server will be used to implement data access services. The database server will support ANSI SLQ92 standards.

- End User Reporting
  End user reporting functionality will allow users to access production reports during the Release 1 phase of the project. The development of an ad hoc reporting capability will be pursued in Release 2. Ease of use, flexibility for differing modes of reporting, and compatibility with other system components are some of the issues that will be considered as part of the tool selection process.

See Figure A for an example of an architectural design make up.

Figure A



Alternatives Analysis

In the May 2000 IAPD Georgia considered five approaches or alternatives to developing SACWIS. The alternatives considered were as follows:

- Maintain the status quo.
- Enhance existing systems.
- Transfer a total SACWIS from another state.
- Contract with a system integration vendor to deliver all SACWIS functionality.
- Develop a new system using contractor support, with the state acting as its own system integrator.

In the April 2001 IAPD there was further review and reevaluation of the five alternatives presented previously. This reevaluation led to the development and assessment of a modification of alternative #2 Enhance and Integrate Existing Systems. This modified alternative proposes an approach that will integrate and enhance the existing child welfare systems as part of the statewide enterprise integration/portal strategy, adding missing functionality via components that are either acquired or developed as required.

Cost/Benefit Analysis

Wisconsin projects that SACWIS will enable workers and managers to have immediate access to information. Management will be able to review cases and evaluate case progress. Improvements in productivity are expected by elimination of some manual processes that are currently in place as well as eliminating duplicate or redundant collection of information. They also project improvements in the area of claims and reimbursements, which will lead to a 10% increase in IV-E collections annually. Having a system design that includes reporting of services received, client eligibility, and reimbursements will accomplish this. Other more intangible benefits expected include:

- Case information will be more timely and accurate
- Tracking and case management system is improved
- Time management information is more accurate

Wisconsin outlines general benefits of automation as follows:

- Provides opportunities for reengineering current processes
- A phased in system implementation encourages a gradual introduction of technology
- Provides a vehicle for better communication and implementation of program policies and procedures
- Changes the emphasis of data collection from information that assists in administering the program to tools and information that assist front-line workers in performing required job functions

To measure the overall impact and benefit of WiSACWIS, project staff plans to establish benchmarks for measurement during implementation in pilot counties. Wisconsin estimates a net projected monetary benefit of approximately $68,453 after the system has been operational for 6 years.

It was determined in a cost analysis that Louisiana's initial cost with an enterprise system may be the same as a "stand alone" system. However, cost savings would be realized by the state in future project developments by utilizing the common components of the system. Louisiana has a concept of an information system that will benefit the State by utilizing and embracing the changes in technologies and supporting the best practices for the protection of children and families. In addition to the general benefits of automation, Louisiana anticipates a reduction in the rate for moving children among placements. This is accomplished by improving the ability of workers to match the needs of children with available placement resources. The decrease in replacement of children will also translate into an increase in productivity and timesaving for the workers.

Illinois outlines the following benefits of SACWIS:

- Reduces the time devoted to administrative activities; therefore, increasing the time field staff devote to direct services to clients
- Provides comprehensive information on which to base decisions, that will improve the quality of services
- Improves quality and quantity of direct services provided by field staff, which could lessen the need for more drastic and more expensive service alternatives
- Provides more timely and accurate information to evaluate service trends that leads to better policy decisions regarding the safety, permanency, and well being of children and families
- Time is saved in the following criteria:
  - Referral procedures are more efficient
  - Redundant data collection and entry are avoided
  - Reporting is more efficient for specific case events
  - Communication and coordination with the Court is more efficient
  - Other state, community and private agencies have the availability of information through electronic interfaces
  - There is access to mobile computing

The improvements in information available for decision-making as well time savings through automation is expected to reduce the incidence of child re-maltreatment, improve permanency for children, reduce the cost of substitute care, and increase Title IV-E claims. It is also anticipated to enhance partnerships with other agencies and coordination with courts, improve time and paper management, and ensure compliance with federal laws and regulations. Illinois determined the benefits plus the cost of status quo added together were more than the cost of the system by FFY 05 with an anticipated cumulative cost of $5,303,468.

Other states are currently in planning to migrate client server systems to web-enabled or in planning for development of a web-based system. These states include Texas, New Jersey, Florida, and Maryland. Information was unavailable on the projected costs and benefits of the web-enabled systems for these states.

Georgia anticipates SACWIS, along with program improvement and other child welfare reform initiatives will enable improved outcomes for children and families.

In 1994 the State of Georgia embarked upon a plan to implement a SACWIS. Through the year 2000, Georgia has spent $30.3 million on hardware and software for all social services staff, software development charges, and ongoing production costs to support our CPS applications. It is expected that the project period for the planning of the SACWIS, will run through May 2004. The estimated total SACWIS cost for planning and implementation activities, is estimated to be $69.5 million. This includes prior year planning and implementation costs.

Cost estimate reflects the following assumptions:

- Future costs based on the state's previous system development experience with $TARS
- Use of existing state hardware, if feasible

Costs do not reflect the following assumptions:

- Changes in technology-related costs that may result from implementation of CCOP (Consolidated Communications Outsourcing Project) Contract
- Changes in technology-related costs that may result from implementation of the statewide portal

SACWIS PAPD Total Project Budget

FACETS "SACWIS" Funds	**Total Dollars**
Estimated Development and Implementation Budget	$31.5 M
Planning and Infrastructure Budget	$ 7.7 M
Prior Years Infrastructure Investment	$30.3 M
Total Planning Funds	**$69.5 M**

Training

Georgia provided office automation training to teach case managers to use the PC, word processing tools, electronic mail, and social services forms templates. This training was conducted from April 1998 to November 1999 when PCs were first installed for field social service staff. Training was managed and conducted in partnership with a vendor. DHR established six permanent training sites at regional locations throughout the state with plans to secure more sites. These sites will continue to support training and are equipped with workstations to allow hands-on learning.

DFCS staff has also attended training sessions on the use of web-based applications, such as the Case Plan Reporting System (CPRS) and Master Index for the Internal Data System (IDS). Case managers have also used DFCS and Office of Adoptions forms templates. The use of office automation tools has prepared case managers for implementation of SACWIS. Pre-testing prior to release will help target specific training needs and reduce remedial training. DFCS is shifting to providing ongoing training. All enhancements will be necessary to sustain SACWIS. DFCS has recognized the need to move from the traditional

classroom model to other modes of training such as computer-based training. This will offer more flexibility for staff and the organization.

The following include training approaches from other states:

Illinois' training plan consists of:

- Initial 3 day classroom training for staff within 1 week of implementation provided by vendor, geared towards the adult learner, emphasizing how to use the system within the context of one's job, rather than how the system is constructed. 80% of user training was instructor led in a classroom setting at a 1:10 trainer to learner ratio

- Initial training costs for Illinois were approximately $490 per person, $390 for tuition, $60 for travel, and $40 for registration, for a total of $661, 990.

- Computer Based Training (CBT) supplemented classroom training on an ad hoc, as needed basis

- Enhanced help desk support

Louisiana's training plan consists of:

- Assessed office automation skills of staff and instituted programs such as typing tutorials to assist workers in improving skills

- Involved field staff in presenting information about the system

- Used a communication strategy best suited to each group and avoided too many communication updates

- Developed training modules that cover the material in "digestible" increments and targeted to the training audience

- Established training expectations that are realistic based on initial skills assessments and communicate them to staff

- Used "just in time" classroom training that included hands on experience no more than 8 days prior to application roll-out

- Designed the training in modules, conduct training off site and pace training to facilitate learning

- Trained in small groups and provide a PC for each participant

- Used trainers with child welfare experience as well as system experience

- Included both follow-up and reinforcement training

- Staffed help desk with staff who have child welfare experience as well as system experience and involve them early

There are no cost estimates thus far in Louisiana as they are still in the planning phase.

The University of Texas at Arlington School of Social Work, developed the following training plan for managers and supervisors to enhance their capacity to understand and to implement the ASFA of 1997:

- One-day face-to-face introductory workshop
- Internet based training lessons
- Internet-based synchronous training and support via chat room, instant messaging, and telephone conference calls
- Internet-based asynchronous training and support via bulletin boards, e-mail, web pages, and listserv
- One-day face-to-face ending workshop

The benefits of using computer-based training are accepted throughout the private sector. Technology training can help people learn better, faster, and cheaper. In general it seems to work rather well to increase learners' ability to retain and use information. The technology training approach saves time ranging from 25 to 50%. Gartner states a benchmark of 25% of the total project cost should be invested in training support. The use of computer-based training also significantly cuts down on the travel expense of getting employees to the training sites. The cost of purchasing technology training in comparison to traditional classroom training is sometimes significantly more due to the cost of the hardware needed. Most organizations are moving to a high-performance information system platform, and this company wide upgrade can usually accommodate technology training. Company networks, the Internet, and protected intranets are also reducing the capital expenditure required.

Some groups that have implemented corporate wide or region wide technology training systems have reported the following combination of results enhanced their competitive position.

- Enhanced group's ability to adapt and change effectively
- Impartial to class, race, or prior education
- Available 24 hours a day for remediation or self study, available at home or at work
- Empowered workers by providing skills and knowledge needed to make decisions on their own and in teams

In order for training to be effective, states must be committed to training as an ongoing process. Training should be part of the states overall strategic plan. A one-shot training

effort is seldom effective. There must be a follow up process, which incorporates what was learned during the training experience. There needs to be a way to reinforce the learning experience so the employee wants to do it again. There also needs to be a way to encourage employees to share information learned with coworkers. These can double the impact of training. The overall objective for DFCS is to promote on-going professional growth and development and integrate all aspects of the human resource system so that employees are selected, evaluated, developed, promoted and rewarded based on competencies that support organizational success. SACWIS training will provide competency based modules, applicability to other DFCS programs and be cost effective.

Cost Allocation

Georgia SACWIS will be developed to integrate and operate with the Enterprise Portal framework. The planning project includes activities that will affect the state's only APS program. However, these planning activities are generic to both CPS and APS. Therefore, consistent with federal SACWIS policy on cost distribution, the state is sharing the cost of these planning activities with Title IV-E. For SACWIS development and implementation, costs that apply to the APS program only, will be distributed to that program.

The SACWIS IAPD will be a product of this planning effort and will detail the distribution of cost for SACWIS development and implementation activities. The cost allocation is currently 93% for IV-E and 7% for APS.

SACWIS Application Vendors

Vendors that have developed or transferred and implemented client server SACWIS applications are:

UNISYS

- Maine (MACWIS) – Developed
- Michigan -Transfer and Implementation
- Indiana -Transfer and Implementation
- Arizona (CHILDS) – Developed
- Kentucky -Transfer and Implementation

Deloitte and Touché

- Oklahoma (KIDS) – Developed
- West Virginia - Transfer and Implementation
- Clark County - Transfer and Implementation
- Massachusetts -Transfer and Implementation

American Management System (AMS)

- Connecticut (LINK) - Developed
- Rhode Island -Transfer and Implementation
- New Mexico -Transfer and Implementation
- Alabama -Transfer and Implementation

Dynamics Research Corporation (DRC)

- Colorado - Developed
- New Hampshire - Operational

TRW INC.

- Arizona (CHILDS) - Transfer and Implementation
- Iowa -Transfer and Implementation
- Montana -Transfer and Implementation
- Nevada- Transfer and implementation

The above vendors were responsible for detail design using Joint Application Development (JAD) groups, application development, unit testing, system testing, personal computer literacy training, application training, support for pilot locations, statewide implementation support, automated data conversion and a twelve month warranty period in the above states where applications were developed or transferred.

American Management Systems (AMS) has implemented a web-based SACWIS in Illinois. They are currently in the planning phase with Louisiana and in the development phase with Wisconsin.

Figure B-SACWIS status of each state and their technical architecture

Completed

State	**Technical Architecture**
Arizona	Client Server
Oklahoma	Client Server
Rhode Island	Client Server
West Virginia	Client Server

Operational

State	**Technical Architecture**
Arkansas	Client Server
California	Client Server
Connecticut	Client Server
Delaware	Client Server
District of Columbia	Client Server
Indiana	Client Server
Iowa	Client Server
Kentucky	Client Server
Maine	Client Server
Massachusetts	Client Server
Minnesota	Client Server
Montana	Client Server
Nebraska	Client Server
New Hampshire	Client Server
New Mexico	Client Server
Texas	Client Server
Utah	Client Server

Virginia	Client Server
Washington	Client Server
Wyoming	Client Server

Partially Operational

State	Technical Architecture
Colorado	Client Server
Nevada	Client Server
New York	Client Server
S. Carolina	Client Server
Oregon	Client Server
Tennessee	Client Server
S. Dakota	Client Server
Wisconsin	Client Server – Migrating to Web Based

Implementation

State	Technical Architecture
Alabama	Client Server
Florida	Client Server
Illinois	Web Based
Maryland	Client Server
Michigan	Client Server
Mississippi	Client Server
Missouri	Client Server
Pennsylvania	Client Server

Planning

State	Technical Architecture
Alaska	To be Determined
Georgia	To be Determined
Kansas	To be Determined
Louisiana	To be Determined
New Jersey	To be Determined
Ohio	To be Determined

ACF noted no activity for the following states:

- Hawaii
- North Carolina
- North Dakota
- Vermont

Lessons Learned

MAXIMUS performed an analysis of other SACWIS projects for the State of Louisiana in April 2002. The information was obtained via surveys and telephone interviews with key SACWIS personnel in various states. MAXIMUS serves as the Quality Assurance vendor for Louisiana. The following are lessons learned for the planning and implementation phases:

Planning Phase:

- Review the design to identify data elements that are frozen and ensure that appropriate mechanisms are available to correct user errors in frozen records.
- Develop a methodology to determine what design changes will include compensation and which ones will have no additional compensation.
- Review design to ensure no data duplication exists and emphasize to the vendor selected that they will be held responsible during development to correct any data duplications created.
- Develop a comprehensive implementation plan for SACWIS, leaving sufficient flexibility to adapt, as circumstances dictate, during execution of the plan
- Caution management against establishing an inflexible implementation date in the project schedule. Delaying implementation for a short period can sometimes contribute to successful implementation
- Test network capacity during development to avoid problems during implementation
- Institute a formal change control process and prohibit any change to design until the change is appropriately documented, fully considered and formally approved in writing
- Develop a plan to ensure a sound conversion for SACWIS. At a minimum, the plan should address limits on data conversion, an approach to data cleansing and thorough testing of conversion software. Ensure that the plan provides adequate time and resources
- Establish a priority for the manual entry of paper records into SACWIS. Priorities should then be matched with available resources to generate a manual conversion strategy

Implementation Phase:

- Design SACWIS training in modules; conduct training off site, pace training to facilitate learning and include follow-up and reinforcement training
- Have a procedure to inform users if the system is unavailable For example use a bulletin board on the portal
- Prepare a backup procedure for intake when the system is unavailable
- Have a committee to address policy issues that arise during rollout
- Implement a data quality unit after implementation to ensure AFCARS and NCANDS data are entered accurately and in a timely fashion
- Have a procedure to identify potential enhancements to the SACWIS system

GLOSSARY OF TERMS

Application Programming Interface (API) - A set of routines, protocols and tools for building software applications. Application Programming Interfaces are designed for programmers. They are ultimately good for users because they guarantee that all programs using a common API will have similar interfaces. This makes it easier for users to learn new programs.

Application Program Language (APL) - A programming language noted for its ability to generate matrices (data elements presented in rows and columns) and its brevity.

Asynchronous Training – Training interactions which do not require everyone to be available in real time, and include voice-mail, the web, and other familiar forms of communication.

Browser – A software program that resides on a Personal Computer Class Machine and provides a telecommunications interface across a specially the Internet. A Browser is an example of a "light or thin" client.

CBT – Computer based training

Change Management – A systemic approach to dealing with change, both from the perspective of an organization and on the individual level. Defining and implementing procedures and/ or technologies to deal with changes in business environment and to profit from changing opportunities.

Client – Application software, which resides on the PC in offices.

Client Server - An application that runs on a personal computer or workstation and relies on a server to perform some operations. For example, a client submits a request to a server. The server processes the request and returned the results to the client. A Client server environment facilitates the use of Graphical User Interface (GUI) that is available on workstations.

Database – An electronic repository of data. Most state-of-the art databases are **"**Relational"

Data Warehouse – A database specifically designed to contain historic snapshots of various operational system data, normally in a aggregated and cleansed form used for reporting and strategic decision support by data analysts. Data in a data warehouse is stored in different structures from that stored in transactional systems.

Extensible Markup Language (XML) –
An open standard for describing data used for defining data elements on a Web page and business-to-business documents. It uses a similar tag structure as HTML; however, whereas HTML defines how elements are displayed, XML defines what those elements contain. HTML uses predefined tags, but XML allows tags to be defined by the developer of the page.

Function - Any of a group of related activities or duties contributing to a larger ongoing action.

Graphic User Interface (GUI) - A program interface that takes advantage of the computer's graphics capabilities to make the program easier to use.

Hyper Text Markup Language (HTML) - The authoring language used to create documents on the World Wide Web. HTML defines the structure and layout of a Web document by using a variety of tags and attributes.

Intranet – Private networks built with Internet technology. Intranets can be compared to a very sophisticated cafeteria bulletin board where employees view information, post messages, and in general keep up with what is happening in an organization.

LAN – Local area network

MAN – Metropolitan Area Network

Statewide Automated Child Welfare Information System (SACWIS) — The Omnibus Reconciliation Act of 1993, provided states with federal financial support for the development of statewide systems that automate the collection of federally mandated child welfare data and provides support for the delivery and management of child welfare services.

Server – A computer or software package that provides a specific capability to client software running on other computers. Servers can perform a variety of functions including application processing, data storage and print management.

Standard Generalized Markup Language (SGML) - A standard for defining the format in a text document. SGML is a very comprehensive language that also includes hypertext links. HTML is an SGML document that uses a fixed set of tags, while XML is a simplified version of SGML.

Synchronous Training- Interactions require all parties to be available at the same time.

System Descriptions (Current Georgia Systems):

Adoption and Match System (ADAM) - The department's PC-based system that tracks and matches adoptable children and approved families. This system is also used to generate routine and special reports for analysis and special requests related to adoptions, including AFCARS data.

Case Plan Reporting System (CPRS) - The department's Web-based system that has automated development of the Case Plan for children in foster care and provides access to the courts for review.

Clarke County Social Services Automated System (SSAS) - The system is a database program using Access 97, which is presently installed on all FACETS machines. It uses online versions of state mandated forms to collect new case information and determinations. Once entered, the system provides for the automatic production of letters to clients, daily work logs for caseworker tracking due dates and results, production of monthly reports at a caseworker, unit, and agency level. It stores all historical information, so that one may look online through the history of any given case. An online search tool provides for screening new CPS intakes, and looking for available Foster Homes for children taken into custody based on age, sex and availability. It is connected to the Internet to map the location of new CPS intakes and provide driving directions. An online sign out log is provided to show when a worker is going out on a home visit, when they are expected to return, and if they are overdue. The system is networked allowing for centralized reporting and record keeping.

County Statistical Reporting System (COSTARS) - A county-based accounting system that tracks the purchase of services, Title IV-E, and other funding source expenditures.

Department of Corrections (DOC) - The DOC application manages data on individuals placed in correctional facilities, on probation or on parole.

Internal Data System (IDS Online) **-** The department's social services data system that captures demographic and detail case data, including AFCARS data, on families and children receiving social services from DFCS

Protective Services Data System (PSDS) - The department's batch entry, mainframe-based system that supports the collection and reporting of information on child abuse and neglect, investigations including the NCANDS report. This system is mandated by Georgia statute.

Support Tracking Accounting and Reporting System ($TARS) – The state's child support tracking, accounting, and reporting system

System for the Uniform Calculation and Consolidation of Economic Support Services (SUCCESS) - Maintains Title IV-A eligible Clients including, but not limited to, those referred through the SACWIS interface. SUCCESS applications support the determination of Funding Source Eligibility, including Medicaid, for DFCS.

Systems and Methods Inc Lending Help and Eliminating Problems (SMILE) - A proprietary application from Systems and Methods (SMI). SMILE accepts accounting information from 159 county bookkeepers. It produces checks to the counties for payroll, adoption supplements; foster care providers, PUP, and other direct payments. In addition, it supports the creation of UAS and COSTARS information for further analysis.

WAN – Wide Area Network

Web Access - Web access is a system of Internet servers that support specially formatted documents. The documents are formatted in a script called Hyper Text Markup Language (HTML) that supports links to other documents, as well as graphics, audio, and video files.

Web Application – An application that uses a browser as its user interface and Usually runs on an application server. A web application may combine business logic with back-end data sources like relational databases, application mining information, and MQSeries. A web application can generate HTML pages or download Java applets.

Web Based - Web-based application is one that is designed from scratch to be accessed over the Internet by a Web browser, developed so that the application can be extended by additional components, and managed by an application server with built-in features such as security and integration. The business rules that drive the web-based application can be updated or changed by the domain specialist (non-IT specialist) who develops and is responsible for these rules from the business perspective.

Web Enabled - A Web Enabled application is one that was originally written for the client/server or mainframe environment and only the client piece is rewritten for Web Access. A Web Enabled application requires all updates, including business rules, to be funneled through the Information Technology group that supports the legacy system.

Web Server – A software program that transmits web pages to and from a browser. The most widely used web servers include Microsoft Internet Information Server and Netscape web server. Another, Apache web server is included in IBM's Web Sphere product. Any computer can be turned into a web server by installing server software and connecting the machine to the Internet.

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